

What is claimed is

1. A method for the controlled tempering of a casting trough (5) integrated between a supply vessel (3) for a molten metal (2), made of copper or a copper alloy, and at least one continuous casting mold (6), wherein the trough wall[s] (13) and the trough floor (14) of the casting trough (5) are at least partially provided with a lining layer (15) having a specific electrical resistance between  $10^{-1} \Omega \cdot m$  and  $10^{-6} \Omega \cdot m$  and being resistant to the heat of the molten metal (2), and the lining layer (15) is inductively heated by an electrical heating device (16) which is arranged outside the lining layer (15).
2. The method according to Claim 1, wherein the inductive tempering of the lining layer (15) is controlled or regulated.
3. The method according to Claim 1 or 2, wherein the heating device (16) is operated at a frequency between 100 Hz and 15000 Hz, preferably between 1000 Hz and 8000 Hz.
4. The method according to one of Claims 1 to 3, wherein the lining layer (15) is inductively heated to a temperature of more than 50%, preferably more than 80%, of the liquidus temperature in °C of the molten metal (2) before the start of casting.
5. A casting trough for the implementation of the method according to one of Claims 1 to 4, which has a ratio of its length (L) to width (B) equal to or greater than 3, and has an interior lining layer (15), which is resistant to the heat of the molten metal (2), having a

specific electrical resistance between  $10^{-1} \Omega \cdot m$  and  $10^{-6} \Omega \cdot m$  as well as a thickness (D) ranging between 9 mm and 150 mm, the interior surface of which amounts to at least one-third of the interior surface of the casting trough (5) covered by the molten metal (2), conductors of a heating device (16), which are energized with electrical current (19) and are combined with the lining layer (15), being arranged circumferentially at least in the longitudinal direction of the trough wall[s] (13).

6. The casting trough according to Claim 5, which has a lining layer (15) with a thickness (D) between 20 mm and 80 mm.
7. The casting trough according to Claim 5 or 6, wherein the lining layer (15) is made of graphite, clay graphite, carbon or silicon carbide or of a mixture containing two or more of these single components.